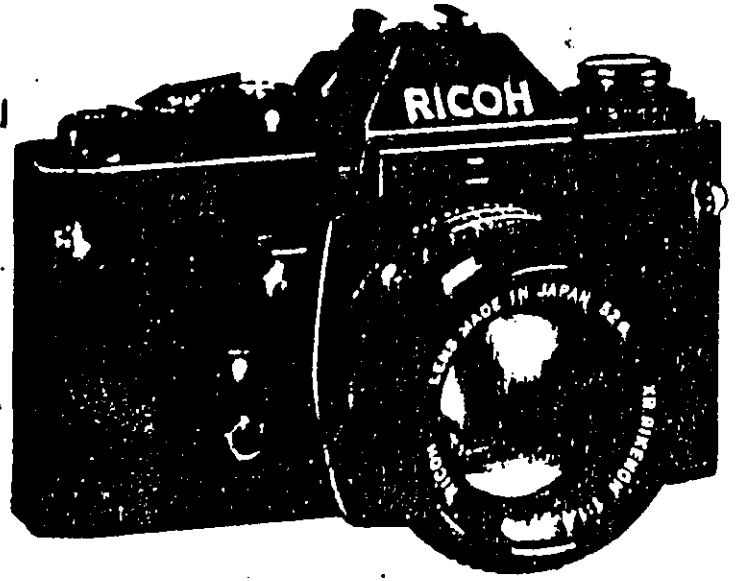


REPAIR MANUAL AND REPAIR PARTS

RICOH KR-10

RICOH COMPANY LTD.

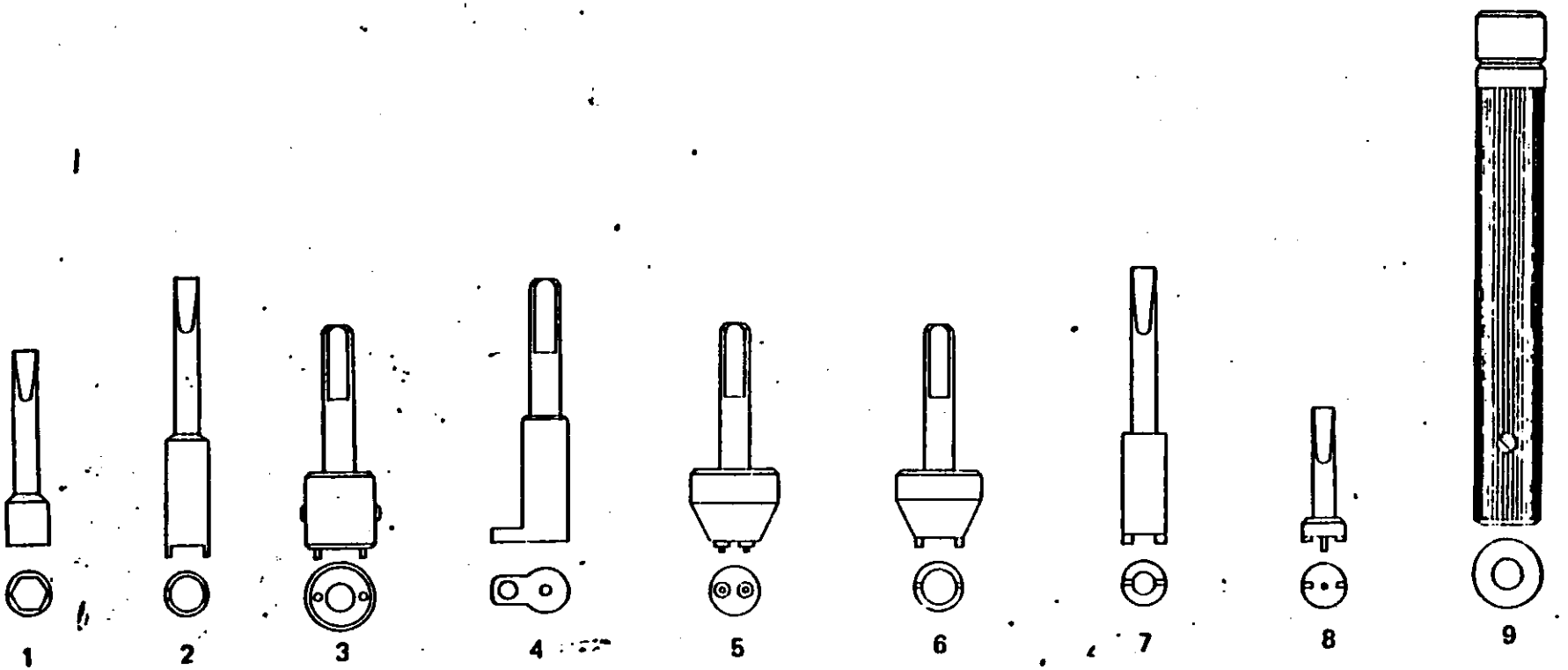
TOOL SET FOR KR-10

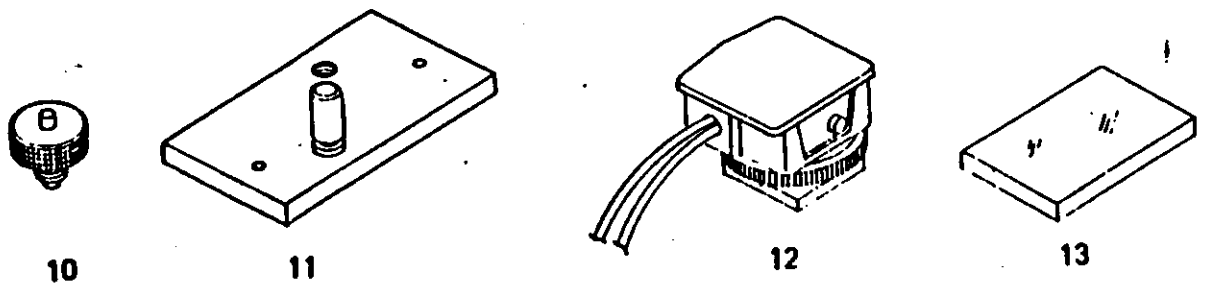
Sketch No.	Tool No.	Description	XR-1s	XR-2s	XR-1	XR-2	XR-500	KR-5	
1	3121 9999	Tool for Winder Set Position Shaft B (Sketch No. 56 on page 56)	O	O					
2	3121 9998	Tool for Winder Set Position Shaft A (Sketch No. 15 on page 56)	O	O					
3	3121 9997	Tool for Wind Level Nut (Sketch No. 2 on page 48)	O	O					
4	3121 9996	Tool for Winding (Sketch No. 21 on page 54)	O	O					
5	3116 9999	Tool for Shutter Speed Dial Screw (Sketch No. 12 on page 48)	O	O	O	O	O	O	
6	3116 9998	Tool for ASA Plate Nut (Sketch No. 30 on page 48)	O	O	O	O	O	O	
7	3116 9997	Tool for ASA Button Nut (Sketch No. 26 on page 48)	O	O	O	O	O	O	
8	3116 9996	Tool for Synchro Socket (Sketch No. 34 on page 48)	O	O	O	O	O	O	
9	3116 9996	Tool for Tool Shaft (Sketch No. 3, 4, 5, 6)	O	O	O	O	O	O	
10	3121 9979	Tool for Winder Release Stroke Adjustment A (Fig. 52)	O	O					
11	3121 9978	Tool for Winder Release Stroke Adjustment B (Fig. 51)	O	O					
12	3121 9977	Tool for LED Checking (Fig. 67)	O	O					
13	3116 9979	Tool for 45° Adjustment Mirror (Fig. 42)	O	O	O	O	O	O	

SPECIFICATIONS

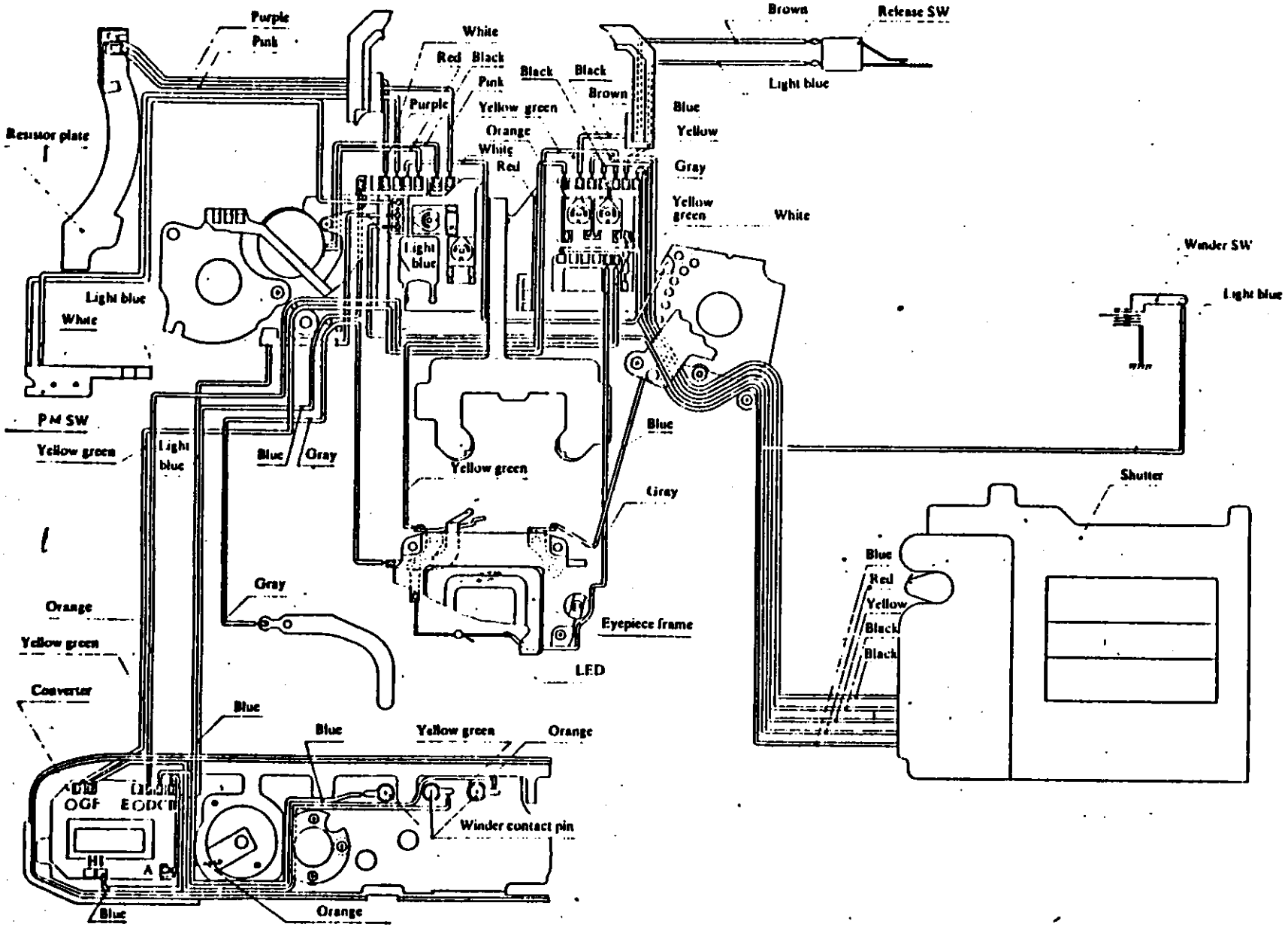
CAMERA TYPE	KR-10 35 mm aperture-priority AE (automatic exposure) SLR with electronic metal focal plane shutter
FILM FORMAT	24 × 36 mm
FILM SIZE AND CAPACITY	35 mm perforated film in 12, 20, 24 or 36 exposures
STANDARD LENS	50 mm XR Rikenon f/1.4 (Multi-coated), 6 groups 7 elements 50 mm XR Rikenon f/1.7 (Multi-coated), 5 groups 6 elements 50 mm XR Rikenon f/2.0, 5 groups 6 elements Filter size: 52 mm screw-in type
LENS MOUNT	"K" type bayonet with 65° rotating angle
SHUTTER	Vertically moving Copal EF607 electronically controlled metal focal plane shutter Automatic electronic shutter: continuously variable speeds from LT (approx. 8 sec.) to 1/1000 sec. Manual electronic shutter: stepped speed from 4 to 1/1000 sec. Manual mechanical shutter without batteries: "B" and "X" (1/90 sec.)
VIEWFINDER	Fixed eye-level pentaprism, shutter speeds, "A" (automatic), "B" (bulb), "X" (1/90 sec.), exposure meter needle (also acts as battery checker), shutter speed indicator and battery check zone visible. Viewing magnification 0.83X Field of view covers 93% of actual picture area Flash ready lamp (LED)
FOCUSING	Diagonal split-image spot in microprism band surrounded by fresnel field
EXPOSURE METER	Three CdS photocells TTL full open metering for center-weighted average light reading coupled to aperture-priority automatic exposure system
EXPOSURE COUPLING RANGE	LV 1 to 18 (ASA 100 film with 50 mm f/1.4 lens)
FILM SPEED RANGE	ASA 12 to 3200 (DIN 12 to 36)
EXPOSURE METER POWER SUPPLY	Two 1.5V silver-oxide batteries (Mallory MS76, Eveready S76 or equivalent)
FLASH SYNCHRONIZATION	X synchronization for electronic flash unit at "B", "X" (1/90 sec.) and 4 sec. to 1/125 sec.
AUTOMATIC FLASH CONTROL	With Ricoh XR Speedlite 240, set shutter speed dial at auto and it will set shutter speed 1/90 sec. automatically. Manually set the aperture ring to the same aperture set on flash.
FLASH TERMINAL	"X" flash terminal, "X" contact (with electric shock prevention mechanism) on hot shoe for cordless electronic flash unit
FILM LOADING	Multi-slit easy loading
FILM WIND	Single stroke film advance lever with 135° winding angle (40° play) Automatic winding possible mounting Ricoh winder-1.
FILM REWIND	Engage film rewind by pressing film rewind button on base of camera
EXPOSURE COUNTER	Additive, automatic resetting
OTHER FEATURES	Self-timer Hot shoe Shutter release lock (with film advance lever) Meter on/off switch (with shutter release button) ASA dial lock Cable release socket Tripod socket Plus/minus 2-stop exposure compensation dial (+2, +1, 0, −1, −2) ASA/DIN conversion label (on back of back cover) Automatic exposure lock button
DIMENSIONS	(Body only) Width: 139.9 mm (5.51 inches) Height: 91.3 mm (3.59 inches) Thickness: 48.0 mm (1.89 inches)
WEIGHT	(Body only) 545 g

1. TOOL SET FOR KR-10

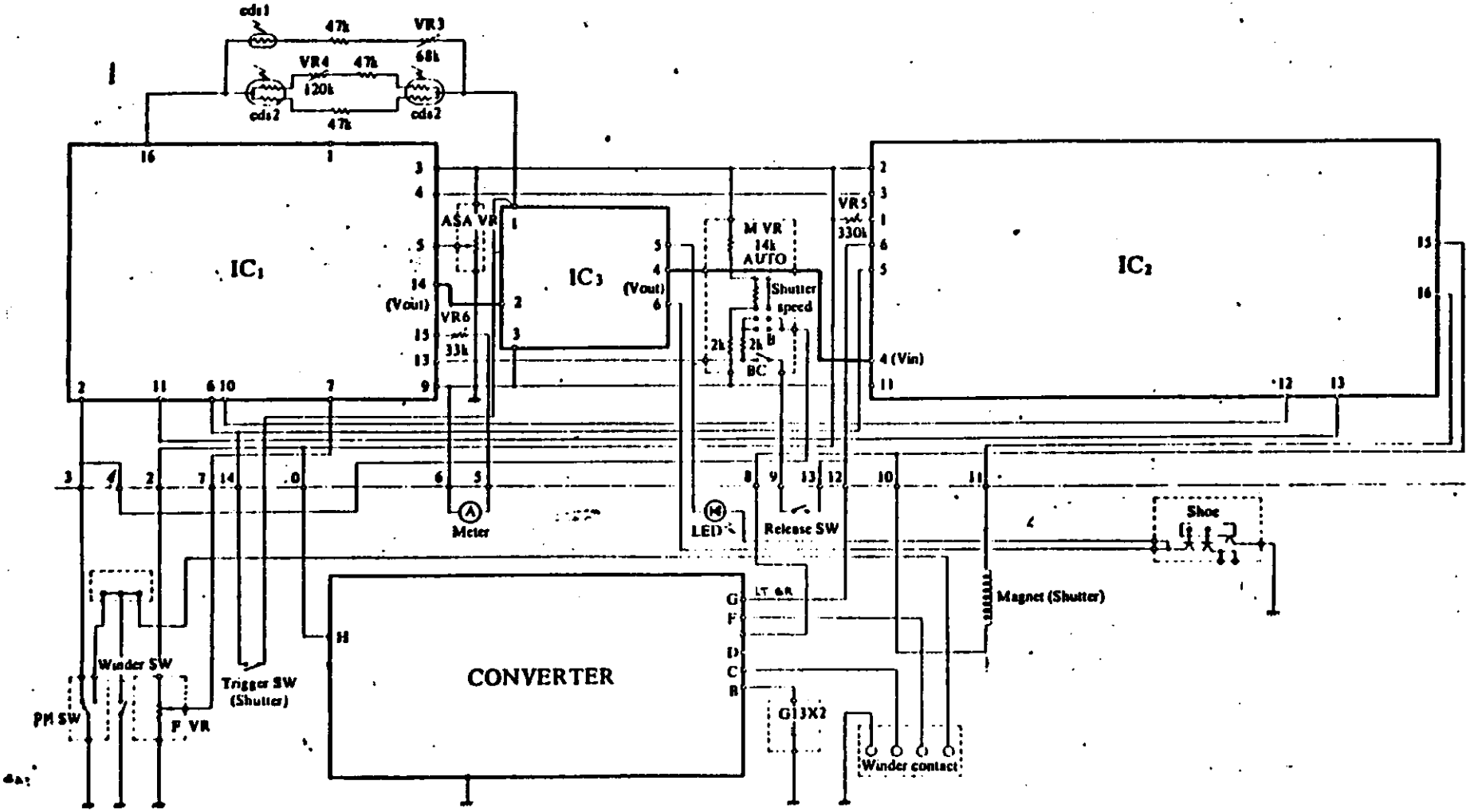




2. WIRING DIAGRAM



3. SCHEMATIC DIAGRAM



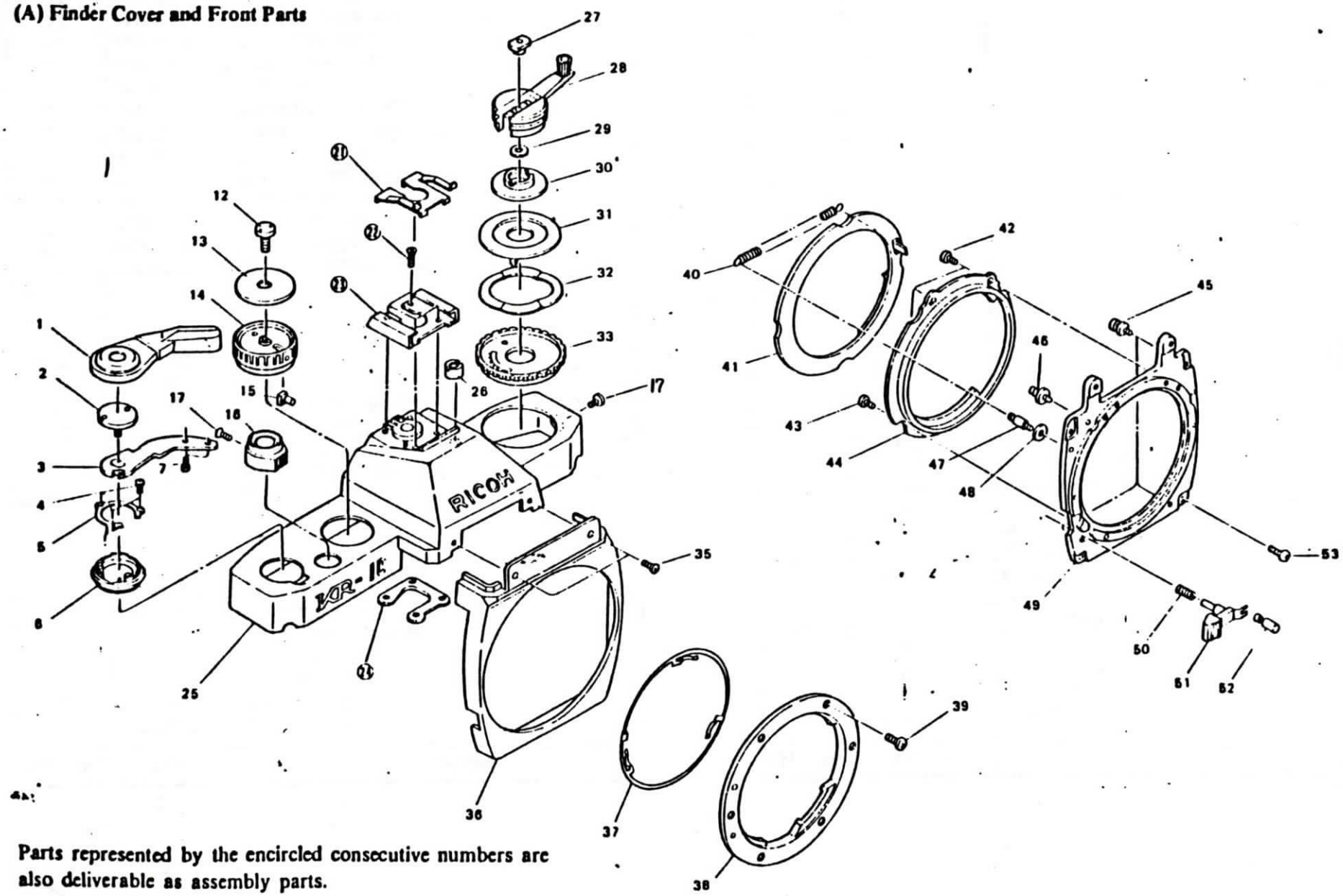
4. ADJUSTMENT OF ELECTRICAL EQUIPMENT

Name of adjustment	Camera set: Shutter	Camera set: ASA	Camera set: Lens	LV	Setting on measurement	Standard	Release SW	Adjusting point	Use the tester or tool
Shutter speed	1/1000				1/1000	0.65 ~ 1.48 ms	ON	VR5	Shutter tester
	1/125				1/125	7.04 ~ 10.3 ms	ON	VR2	
Power source					Terminal 0 or 1	5.20 ~ 6.00V	ON		Digital multi meter
CdS			F1.4 ∞	9	IC_1 terminal 1	see Fig. 61	ON	VR3	1. Digital multi meter 2. Dummy cover
				15		see Fig. 61		VR4	
Exposure		100	F1.4 ∞	9	IC_1 terminal 14	see Fig. 64	ON	VR1	1. Digital multi meter 2. Dummy cover
Meter		100	F1.4 ∞	9	in the finder	see Fig. 64	ON	VR6	1. Dummy cover
Battery checker					in the finder	see Fig. 64			
LED checking	AUTO				LED light on	7.1 ~ 11 ms	ON		1. For the LED checking tool 2. Regulated DC power supply on speedlite 240

NOTE

PLEASE REFER TO THE REPAIR MANUAL OF XR-2S FOR ADJUSTMENTS.

(A) Finder Cover and Front Parts

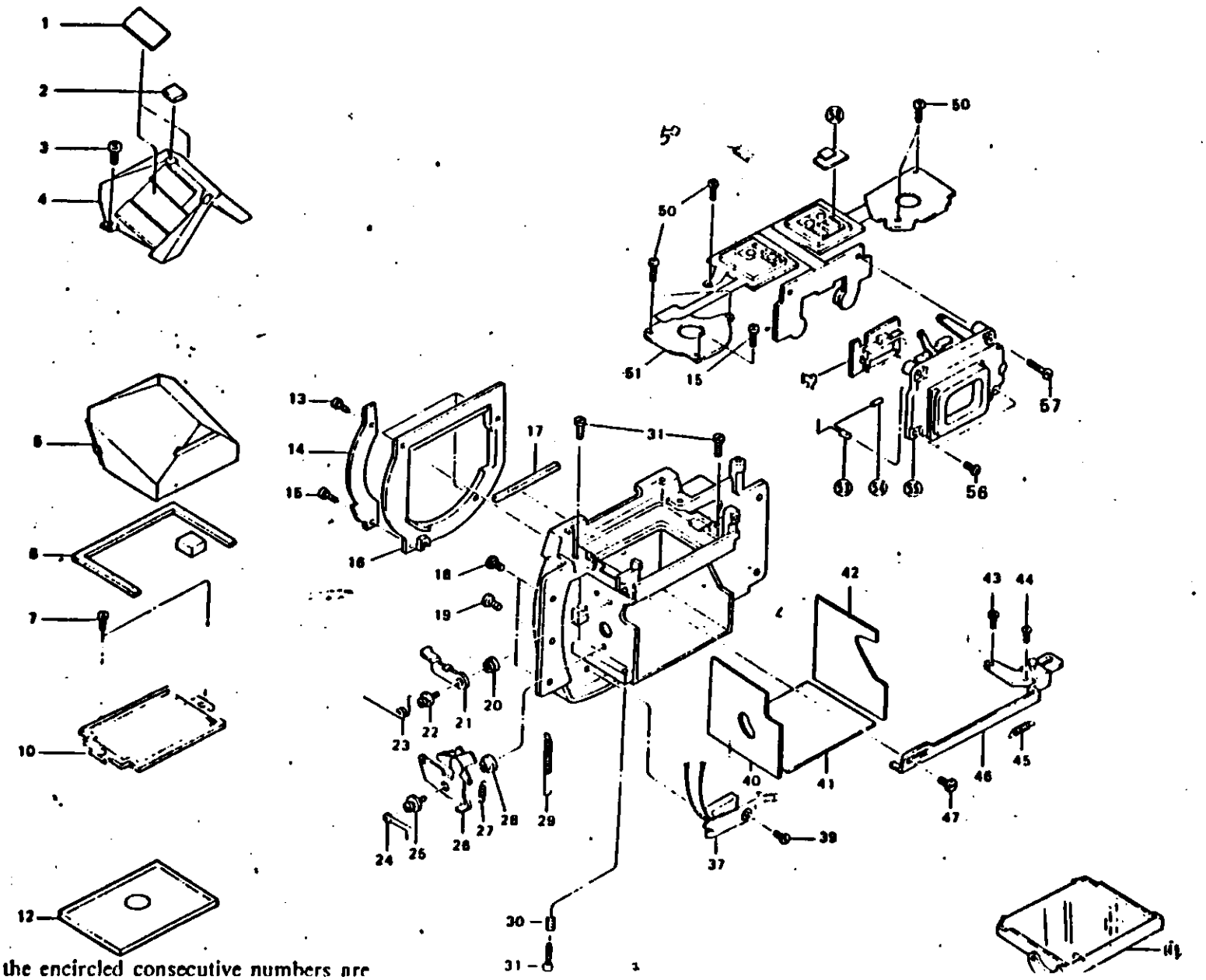


Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

Sketch No.	Part No.	Description
1	31214102	Cover: wind lever
2	31214103	Nut: wind lever
3	31214101	Wind lever
4	02414020W	Screw M1.4 × 2.0
5	31195512	Plate: finder cover holder
6	31195511	Finder cover holder
7	09842045W	Tapping screw M2.0 × 4.5
12	31161359	Screw: shutter speed dial
13	~~31216106~~ 31196233	Shutter speed plate
14	31162106	Shutter speed dial
15	31162107	Shutter dial lock button
16	31195121	Release holder
17	31195136	Screw
(21)	31214252	Spring: accessory shoe
(22)	02017035Z	Screw M1.7 × 3.5
(23)	31214251	Accessory shoe
(24)	31214254	Nut: accessory shoe
(21~25)	31216059	Finder cover ass'y
26	31161415	Nut: ASA button
27	31161424	Nut: rewinding disk
28	31161054	Rewinding disk ass'y
29	31161426	Washer
30	31161411	Nut: ASA plate
31	31211070	ASA plate ass'y
32	31162110	Washer: ASA plate
33	31211069	ASA dial ass'y
35	31163004	Screw M.17 × 5.0
36	31195132	Front cover ass'y
37	31161672	Spring: mount
38	31161671	Lens mount
39	02420040F	Screw M2.0 × 4.0

Sketch No.	Part No.	Description
40	31161636	F stop spring
41	31161047	F stop ring ass'y
42	02417030W	Screw M1.7 × 3.0
43	31196247	Screw
44	31161634	Shield ring: lens mount
45	31161632	Spring hook B
46	31161638	Screw A
47	31161630	Stopper B
48	31161637	Washer
49	31161621	Base: lens mount
50	31161676	Spring: lens lock button
51	31211012	Lens lock button ass'y
52	31161673	Lens lock pin
53	02420040W	Screw M2.0 × 4.0

(B) Mirror Box and Viewfinder Parts

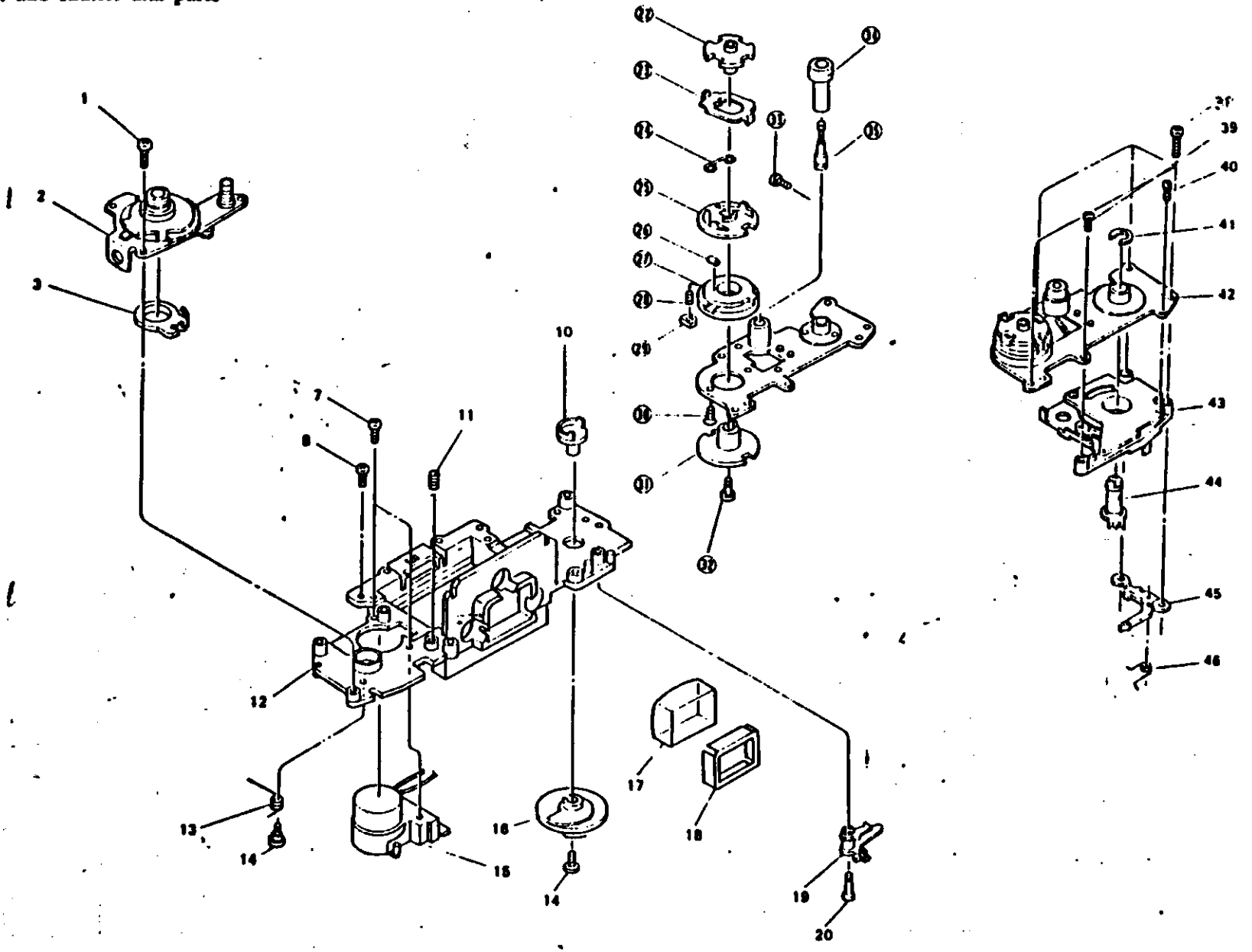


Parts represented by the encircled consecutive numbers are

Sketch No.	Part No.	Description
1	31161862	Adhesive tape
2	31161310	Shield
3	31121522	Tapping screw M1.7 × 3.5
4	31161306	Prism cover
5	31195101	Prism
6	31161309	Shield: prism
7	02417020W	Screw M1.7 × 2.0
10	31216109	Field frame
12	31196227	Fresnel lens
13	02417030Z	Screw M1.7 × 3.0
14	31162021	Resistor plate ass'y
15	09841740Z	Tapping screw M1.7 × 4.0
16	31161635	Shield plate: lens mount
17	31161582	Shield
18	02520035W	Screw M2.0 × 3.5
19	09851735Z	Tapping screw M1.7 × 3.5
20	31161517	Shaft: adjusting lever (left)
21	31161045	Adjusting lever ass'y (left): M frame
22	31161518	Screw: adjusting lever (left)
23	31161519	Spring: adjusting lever (left)
24	31196226	Spring
25	31161604	Shaft screw: focus adjusting arm
26	31211010	Focus adjusting arm ass'y
27	31214212	Spring
28	31161603	Shaft: focus adjusting arm
29	31214237	Spring
30	31161608	Spring
31	31161609	Screw
37	31216063	switch ass'y
39	02417635Z	Tapping screw M1.7 × 3.5

Sketch No.	Part No.	Description
40	31214218	Shield B
41	31161581	Shield C
42	31161579	Shield A
43	02417030W	Screw M1.7 × 3.0
44	02017030W	Screw M1.7 × 3.0
45	31161372	Spring
46	31161008	Speed connection lever ass'y
47	31196246	Screw
(48)	~~31161516~~	Spring: mirror frame 31216144
(48~49)	31191063	Mirror frame ass'y
50	09851430Z	Screw M1.4 × 3.0
51	~~31214088~~	CdS circuit board ass'y 31216090
52	31195501	Frame : eyepiece
(53)	31214263	LED
(54)	31214265	Tube: LED
(53~55)	31211033	Eyepiece frame ass'y
56	31161308	Screw
57	09841780Z	Tapping screw M1.7 × 8.0
(58)	31214623	IC
59	31214625	Plate

(C) Prism and shutter dial parts

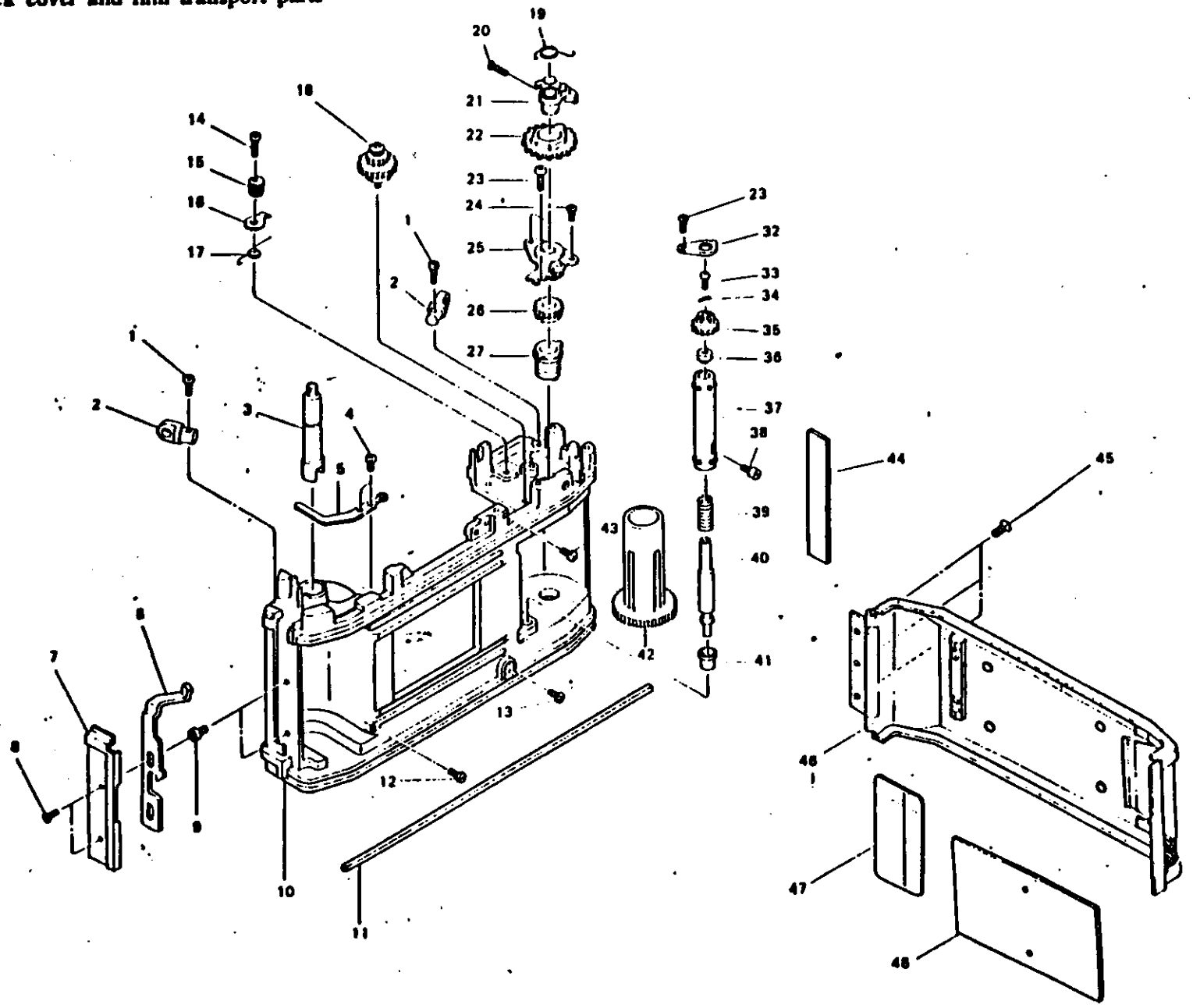


Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

Sketch No.	Part No.	Description
1	02417070Z	Screw M1.7 × 7.0
2	31191010	ASA base plate ass'y
3	31161010	ASA contact ass'y
7	09851430Z	Tapping screw
8	02517035W	Screw M1.7 × 3.5
10	31162101	Shaft: shutter dial cam
11	31161427	Spring
12	31161301	Prism frame
13	31161428	Spring
14	31196244	Screw
15	31162316	Exposure meter movement
16	31162102	Speed indication cam
17	~~31161001~~	Eyepiece lens 31196233
18	31161305	Mask: eyepiece lens
19	31161050	Shutter dial arm ass'y
20	31196235	Shaft: shutter dial arm
(22)	31161355	Nut: shutter dial shaft
(23)	31162104	Lock plate: shutter dial
(24)	31162105	Spring
(25)	31162103	Click plate: shutter dial
(26)	31161356	Click
(27)	31161352	Bush: shutter dial
(28)	31161357	Spring
(29)	31161353	Nut
(30)	02017035Z	Screw M1.7 × 3.5
(31)	31162011	Shutter dial shaft
(32)	31196345	Screw
(33)	02417035W	Screw M1.7 × 2.0
(34)	31161282	Release button
(35)	31161283	Shaft: release button
38	02417070Z	Screw M1.7 × 7.0
39	09851735Z	Tapping screw M1.7 × 3.5

Sketch No.	Part No.	Description
40	09851435Z	Tapping screw M1.4 × 3.5
41	31214184	Retaining ring 4ϕ
42	31216051	Shutter dial base plate ass'y
43	31211020	Film counter ass'y
44	31214104	Wind shaft A
45	31211021	Wind lever click ass'y
46	31214109	Spring: wind lever click ass'y

(D) Body, back cover and film transport parts

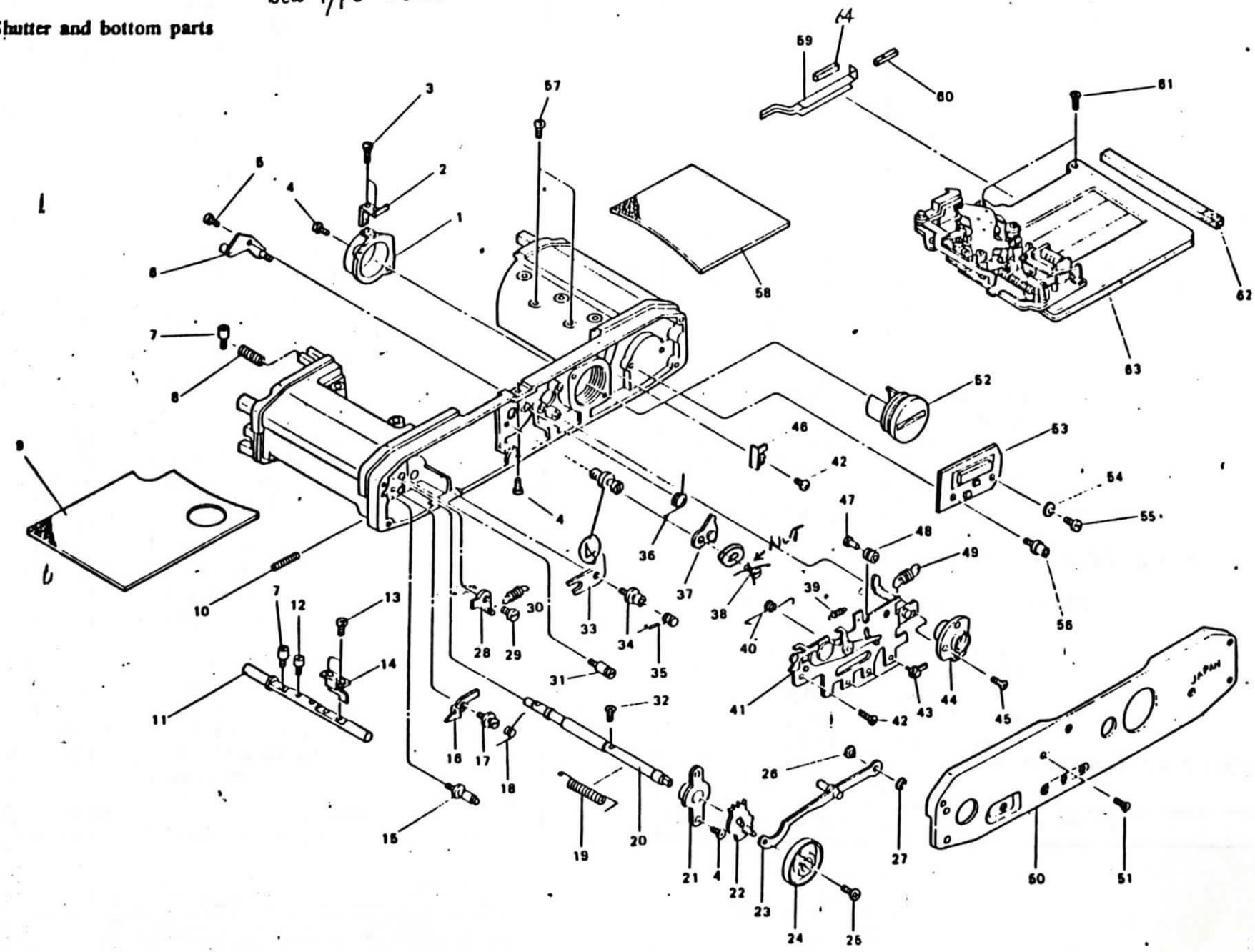


Sketch No.	Part No.	Description
1	02520070Z	Screw M2.0 × 7.0
2	31161016	Strap metal ass'y
3	31161416	Rewinding shaft
4	09841730Z	Tapping screw M1.7 × 3.0
5	31195514	Lock spring: back cover
6	31161464	Latch: back cover
7	31161466	Clip cover
8	02014030W	Screw M1.4 × 3.0
9	31161465	Shaft: back cover latch
10	31216067	Body ass'y
11	31161488	Shield
12	31161469	Screw: film guide
13	31163002	Screw M2.0 × 5.5
14	02517045W	Screw M1.7 × 4.5
15	31161128	Eccentric shaft
16	31161127	Stopper: reverse rotation
17	31161129	Spring
18	31161057	Gear B, C ass'y
19	31214118	Spring: wind clutch ass'y
20	02017060Z	Screw M1.7 × 6.0
21	31211013	Wind clutch ass'y
22	31161055	Gear A ass'y
23	02417030Z	Screw M1.7 × 3.0
24	02017030W	Screw M1.7 × 3.0
25	31191001	Wind shaft base plate ass'y
26	31161121	Spool gear
27	31161022	Holder ass'y: spool
32	31195519	Holder: sprocket gear
33	02414025Z	Screw M1.4 × 2.5
34	31161137	Pin
35	31161154	Sprocket gear
36	31161139	Sprocket metal
37	31161138	Sprocket
38	31161141	Screw: sprocket
39	31214242	Spring

Sketch No.	Part No.	Description
40	31195503	Sprocket shaft
41	31195502	Sprocket shaft button
42	31161017	Spool ass'y
43	02417070Z	Screw M1.7 × 7.0
44	31161489	Shield
45	09801725W	Tapping screw M1.7 × 2.5
46	31161007	Back cover ass'y 31161065
47	31162130	ASA-DIN label
48	31161006	Pressure plate ass'y

Note : Part # 5 As listed is old Type
New type Screw Has Nut on other end (same part #)

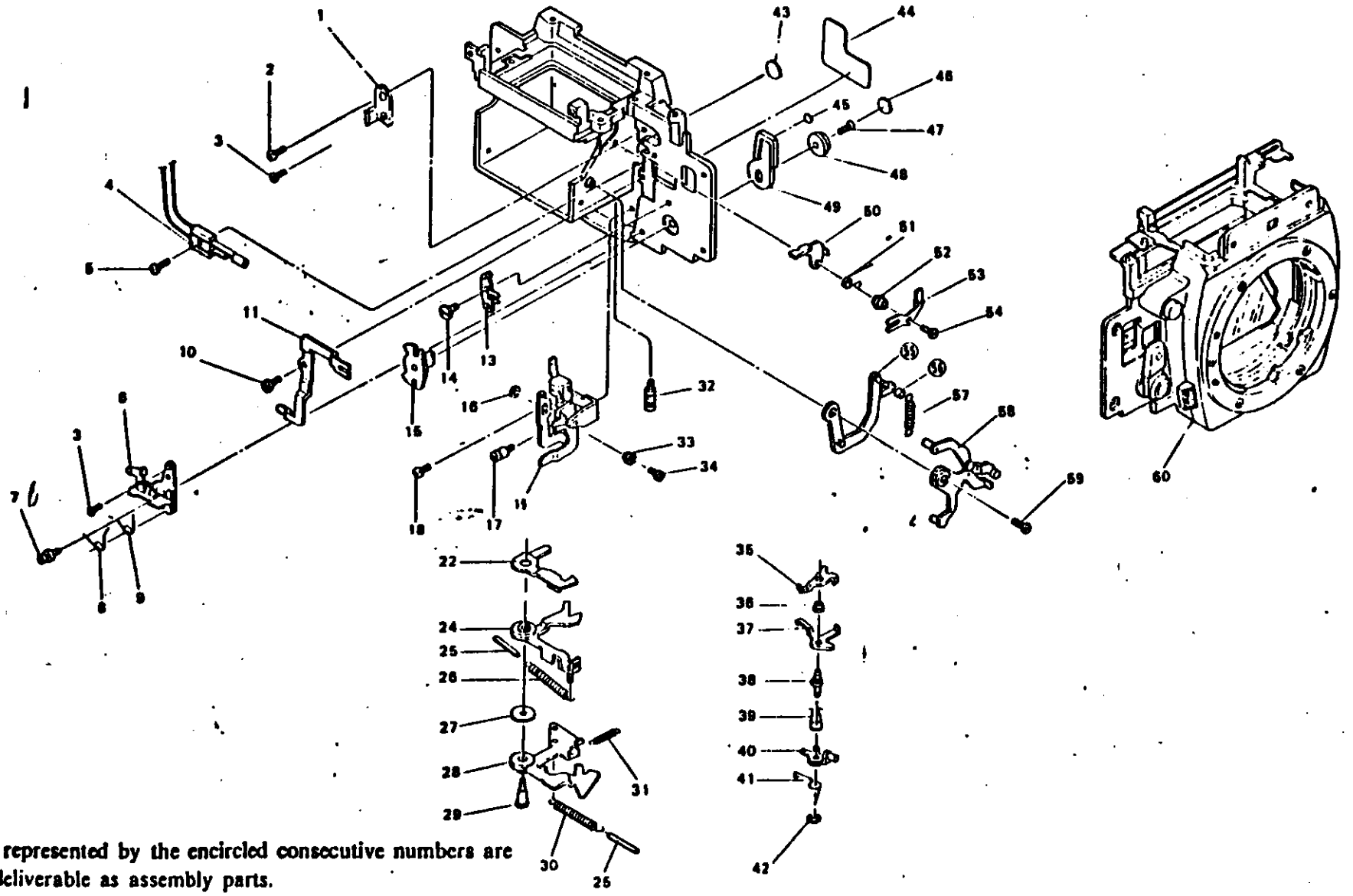
(E) Shutter and bottom parts



Sketch No.	Part No.	Description
1	31161482	Battery case
2	31161483	Contact: battery case
3	09841420W	Tapping screw M1.4 × 2.0
4	02417025W	Screw M1.7 × 2.5
5	31161228	Shaft screw
6	31211016	Q set connection lever ass'y
7	31161286	Screw
8	31214137	Spring: release shaft
9	31161598	Front leather: right
10	05020100W	Screw M2.0 × 10
11	31162211	Release shaft
12	31161589	Screw
13	02414025Z	Screw M1.4 × 2.5
14	31214620	Bulb release lever
15	31214128	Winder set position shaft A
16	31161213	Lock lever
17	31161214	Shaft: lock lever
18	31161215	Spring: lock lever
19	31214121	Rewinding spring
20	31214120	Wind shaft B
21	31214123	Bush: wind shaft B
22	31216064	Wind ratchet ass'y
23	31211025	Wind connection lever ass'y
24	31216137	Winder connection shaft
25	31216142	Screw: winder connection shaft
26	31214230	Bush: connection lever ass'y
27	07200012C	Retaining ring
28	31211015	Nail lever ass'y
29	31192252	Shaft screw: nail lever
30	31214126	Spring: nail lever
31	31161212	Spring lock
32	02017030Z	Screw M1.7 × 3.0
33	31161209	Safety lever
34	31161210	Shaft: safety lever
35	31161211	Spring
36	~~31214181~~	Spring: winder safety lever 31216133
37	~~31211012~~	Winder safety lever ass'y 31216062
38	~~31214130~~	Shaft: winder safety lever 31216132 Nut
39	31214172	Spring

Sketch No.	Part No.	Description
40	31214155	Spring
41	~~31211063~~	Wind connection lever guide ass'y 31216061
42	02417030Z	Screw M1.7 × 3.0
43	31211083	Winder contact pin ass'y
44	31161481	Tripod socket
45	02017035Z	Screw M1.7 × 3.5
46	31162208	Converter earth
47	31214170	Winder release pin
48	31214171	Holder: winder release pin
49	31214164	Spring
50	31214183	Bottom cover 31212190 (New)
51	31121159	Screw M1.7 × 2.5
52	31161004	Battery cover ass'y
53	31162301	Converter
54	31162202	Washer
55	31162201	Screw
56	31214140	Winder set position shaft B
57	02417020W	Screw M1.7 × 2.0
58	31161597	Front leather: left
59	31161187	Shield plate
60	31161186	S stopper
61	02020030Z	Screw M2.0 × 3.0
62	31163005	Shield
63	~~31214602~~	Shutter ass'y 31216157
64	31[illegible]1	Shield
④	31216134	[illegible]

(F) Mirror box parts



Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

Sketch No.	Part No.	Description
1	31161576	Plate
2	02417025W	Screw M1.7 × 2.5
3	02017025W	Screw M1.7 × 2.5
4	31162015	Release switch ass'y
5	02417050Z	Screw M1.7 × 5.0
6	31211061	Winder release base plate ass'y
7	31214186	Winder release stopper
8	~~31214189~~	Spring: release lever B 312161K6
9	31214167	Spring: winder release
10	31196249	Shaft screw: release lever
11	31214610	Release lever
13	31211071	Self connection lever ass'y
14	31162206	Shaft screw: self connection lever
15	31214219	Shaft: self timer
16	31161563	Washer
17	31214216	Spring hook
18	02417020W	Screw M1.7 × 2.0
19	31216065	PV connection lever ass'y
22	31214226	PM lever
24	31211007	Mirror connection lever ass'y
25	31162212	Tube
26	31161550	Spring
27	31161546	Washer
28	31216053	Q set lever ass'y
29	31161547	Shaft screw: Q set lever
30	31216138	Spring
31	31161549	Spring
32	31161559	Screw: spring hook
33	31214238	Bush
34	02517035W	Screw M1.7 × 3.5 } 312161R9 (Bush固定ビス2本)
35	31214227	PM stop lever
36	31163016	Bush
37	31214225	Lever A
38	31163015	Shaft: stop lever
39	31214240	Spring: PM stop lever

Sketch No.	Part No.	Description
40	31211023A	Q set lever ass'y
41	~~31161555~~	Spring 312161K3
42	07200015C	Retaining ring
43	31195129	Plate
44	31161596	Plate
45	31195520	Self lever pointer
46	31195506	Self lever decoration plate
47	31195507	Screw
48	31195505	Plate: self lever
49	31195504	Self lever
50	31161044	Adjusting lever ass'y (right): M frame
51	31161515	Spring
52	31196242	S lever bush
53	31161521	S lever
54	31196252	Screw: S lever
(55~56)	31216054	Diaphragm lever ass'y
(56)	31214207	Ring: diaphragm lever
57	31161537	Diaphragm spring
58	31161032	Mirror up lever ass'y
59	31196253	Screw
60	31216002	Mirror box ass'y